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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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CARY NC 27511

EXAMINER

OPIE, G

ART UNIT

PAPER NUMBER

2151

DATE MAILED:

04/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

ATTACHMENT TO AND MODIFICATION OF
NOTICE OF ALLOWABILITY (PTO-37)
(November, 2000)

NO EXTENSIONS OF TIME ARE PERMITTED TO FILE CORRECTED OR FORMAL DRAWINGS, OR A SUBSTITUTE OATH OR DECLARATION, notwithstanding any indication to the contrary in the attached Notice of Allowability (PTO-37).

If the following language appears on the attached Notice of Allowability, the portion lined through below is of no force and effect and is to be ignored¹:

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to comply will result in ABANDONMENT of this application. ~~Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).~~

Similar language appearing in any attachments to the Notice of Allowability, such as in an Examiner's Amendment/Comment or in a Notice of Draftperson's Patent Drawing Review, PTO-948, is also to be ignored.

¹ The language which is crossed out is contrary to amended 37 CFR 1.85(c) and 1.136. See "Changes to Implement the Patent Business Goals", 65 Fed. Reg. 54603, 54629, 54641, 54670, 54674 (September 8, 2000), 1238 Off. Gaz. Pat. Office 77, 99, 110, 135, 139 (September 19, 2000).

PLEASE DELIVER TO EXAMNER G. OPIE, ART UNIT 2755

[PREVIOUS CLAIM 14]

14. A method for sequencing a plurality of tasks performed or controlled by a computer comprising: _____

- a) displaying on a computer display a user interface having a directional field;
- b) placing in response to user input, task objects in said directional field,

wherein said task objects represent the tasks to be performed by said computer;

- c) selecting a directional attribute for said directional field;
- d) sequencing, by said computer, of one or more of the task objects in the

directional field based on the relative spatial location of the tasks objects in the directional field and the directional attribute of the directional field.

[DRAFT OF PROPOSED CLAIM 14]

14. A method for sequencing a plurality of tasks performed or controlled by a computer comprising:

- a) displaying on a computer display a user interface having a directional field;
- b) placing in response to user input, task objects in said directional field,

wherein said task objects represent the tasks to be performed by said computer;

- c) selecting an at least two-dimensional directional attribute for said directional field;

d) sequencing, by said computer, of one or more of the task objects in the directional field based on the relative spatial location of the tasks objects in the directional field and the directional attribute of the directional field.

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DETAILED ACTION

This office action is responsive to Amendment E, in which claims 1, 14, and 29 were amended.

1. Request for copy of Applicant's response on floppy disk:

Please help expedite the prosecution of this application by including, along with your amendment response in paper form, an electronic file copy in WordPerfect, Microsoft Word, or in ASCII text format on a 3½ inch IBM format floppy disk.

Please include all pending claims along with your responsive remarks. Only the paper copy will be entered -- your floppy disk file will be considered a duplicate copy. Signatures are not required on the disk copy. The floppy disk copy is not mandatory; however, it will help expedite the processing of your application. Your cooperation is appreciated.

2. Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlson et al (U.S. Patent 5,623,592) in view of Keller et al. (U.S. Patent 5,767,852) and "Fabrik: A Visual Programming Environment", Ingalls et al., September 25, 1988, Association for Computing Machinery.

As to claim 1, Carlson teaches a method for sequencing a plurality of tasks performed or controlled by a computer (cause computer 102 to drive external devices to perform the schedule of operations according to the sequence of icons, p12 25-36) comprising:

- a) placing task objects (copying or moving icons[representing task objects], p7 4-11) in a directional field (icon sequence region 806, p12 10-17) having a changeable directional attribute (sequencing rule may be up-to-down or down-to-up, p13 11-18) wherein said task objects represent the tasks to be performed by said computer; and
- b) sequencing (perform the operations ...in the icon sequence, p12 25-36) by said computer, of one or more of the task objects in the directional field based on

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the relative spatial location of the task objects in the directional field (sequence of the icons on time line 808 determines the order in which the operations will be performed, Id.) and the directional attribute of the directional field (sequencing rule, p13 11-18).

Carlson does not explicitly disclose the additional limitations detailed below.

Keller teaches the coordinates of a region 284, ...to include additional variables for higher dimensional spaces, p5 23-42 which corresponds to a directional field having at least two dimensions. It would have been obvious to combine Keller's teachings with Carlson because the multidimensional regional relationships enable more control/direction for task management specificity.

Carlson as modified by Keller does not explicitly disclose the additional limitations detailed below.

Ingalls (§4, p 180-81) teaches a data flow feature that enables a user to select/change the directional operation in a visual programming environment. It would have been obvious to combine the bidirectional behavior support which facilitates user directional (data flow) changes as taught by Ingalls with the Carlson/Keller teachings because the capability to change the direction of an operation provides power and flexibility to a user in a visual task environment.

As to claim 2, Carlson teaches (icon is inserted into the icon sequence at a position dependent on when the operation is to be performed relative to other operations, p20 19-23) which corresponds to resequencing objects by changing the relative spatial location of the objects in the field.

As to claim 3, Carlson teaches (sequencing rule, p13 11-18) which corresponds to the step of selecting a directional attribute for the directional field. It would have been an obvious modification of the sequencing rule as taught by Carlson to provide a selection for the sequencing (equivalent to the direction) rule.

As to claims 4-6, "Official Notice" is taken that modifiable task object properties are used to specify operations to be performed and inclusion/exclusion in the sequence field is well known in the art (MPEP2144.03). It would have been obvious to combine the customary control features for task object management with Carlson's iconic programming because the ability to specify object processes/relationships gives users' greater command over details in the visual development environment.

As to claims 7-13, Carlson teaches (p14 9-26) kinetic and stacker icons which correspond to the recitations regarding the master objects, task objects, and the associations therein. It would have been obvious to modify the icon types as taught by Carlson to serve as various derived objects for structure and scope purposes.

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As to claim 14, Carlson teaches a method for sequencing a plurality of tasks performed or controlled by a computer (cause computer 102 to drive external devices to perform the schedule of operations according to the sequence of icons, p12 25-36) comprising:

- a) displaying on a computer display a user interface having a directional field (icon sequence region 806, p12 10-17)
- b) placing in response to user input, task objects in said directional field (PLACING ICONS ON THE TIME LINE, p13 ln19 et seq.) wherein said task objects (Icons, p6 45-51) represent the tasks to be performed by said computer (iconic programming process, Id.)
- c) selecting a directional attribute for said directional field (sequencing rule may be up-to-down or down-to-up, p13 11-18)
- d) sequencing (perform the operations ...in the icon sequence, p12 25-36) by said computer, of one or more of the task objects in the directional field based on the relative spatial location of the task objects in the directional field (sequence of the icons on time line 808 determines the order in which the operations will be performed, p12 10-17) and the directional attribute of the directional field (sequencing rule, p13 11-18).

Carlson does not explicitly disclose the additional limitations detailed below.

Keller teaches the coordinates of a region 284, ...to include additional variables for higher dimensional spaces, p5 23-42 which corresponds to a directional field having at least two dimensions. It would have been obvious to combine Keller's teachings with Carlson because the multidimensional regional relationships enable more control/direction for task management specificity.

Carlson as modified by Keller does not explicitly disclose the additional limitations detailed below.

Ingalls (§4, p 180-81) teaches a data flow feature that enables a user to select/change the directional operation in a visual programming environment. It would have been obvious to combine the bidirectional behavior support which facilitates user directional (data flow) changes as taught by Ingalls with the Carlson/Keller teachings because the capability to change the direction of an operation provides power and flexibility to a user in a visual task environment.

As to claims 15-25 note the discussions of claims 2, & 4-13 respectively.

As to claim 29, Carlson teaches a method for sequencing a plurality of tasks performed or controlled by a computer (cause computer 102 to drive external devices to perform the schedule of operations according to the sequence of icons, p12 25-36) comprising:

- a) placing task objects (copying or moving icons[representing task objects], p7 4-11) in a directional field having a directional attribute (icon sequence region

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806, p12 10-17) wherein said task objects represent the tasks to be performed by said computer; and

b) sequencing (perform the operations ...in the icon sequence, p12 25-36) by said computer, of one or more of the task objects in the directional field based on the relative spatial location of the task objects in the directional field (sequence of the icons on time line 808 determines the order in which the operations will be performed, p12 10-17) and the directional attribute of the directional field (sequencing rule, p13 11-18).

Carlson does not explicitly disclose the additional limitations detailed below.

Keller teaches the coordinates of a region 284, ...to include additional variables for higher dimensional spaces, p5 23-42 which corresponds to a directional field having at least two dimensions. It would have been obvious to combine Keller's teachings with Carlson because the multidimensional regional relationships enable more control/direction for task management specificity.

Carlson as modified by Keller does not explicitly disclose the additional limitations detailed below.

Ingalls (§4, p 180-81) teaches a data flow feature that enables a user to select/change the directional operation in a visual programming environment. It would have been obvious to combine the bidirectional behavior support which facilitates user directional (data flow) changes as taught by Ingalls with the Carlson/Keller teachings because the capability to change the direction of an operation provides power and flexibility to a user in a visual task environment.

As to claims 30-41 note the discussions of claims 2-13 above.

4. Response to Applicant's Arguments:

Applicant' s remarks filed with Amendment E have been considered, but are deemed to be moot in view of the new grounds of rejection necessitated by Applicant' s amendments to claims 1, 14, and 29.

5. THIS ACTION IS MADE FINAL.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO

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37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Opie at (703) 308-9120 or via e-mail at *George.Opie@uspto.gov*. Internet e-mail should not be used where sensitive data will be exchanged or where there exists a possibility that sensitive data could be identified unless there is an express waiver of the confidentiality requirements under 35 U.S.C. 122 by the applicant. Sensitive data includes confidential information related to patent applications.